

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-4 (Withdrawn)

5. (Currently Amended) A method of manufacturing a semiconductor device comprising:
implanting an impurity of a first conductive type in a semiconductor substrate of a second
conductive type, wherein the implantation is a single implantation;

diffusing the implanted impurity in the substrate by providing ~~through~~ a first gate
insulation film ~~formed~~ on the semiconductor substrate by applying a heat treatment, so as to form
a first drain region partially under the first gate insulation film and a second drain region adjacent
to and above the first drain region, said first drain region having a different impurity
concentration than the second drain region, wherein the first and second drain regions are formed
by a single step of implanting the impurity and a single step of forming the first gate insulation
by applying heat treatment;

providing a second gate insulation film on the semiconductor substrate except where the
first gate insulation film is disposed;

providing a gate electrode that spans from the first gate insulation film to the second gate
insulation film;

providing a source region of the first conductive type disposed proximally to one end of
said gate electrode; and

providing a third drain region of the first conductive type disposed distally from the other
end of said gate electrode and disposed in said second drain region.

6. (Previously Presented) A method for manufacturing a semiconductor device according to Claim 5, wherein said first drain region has a lower impurity concentration than the second drain.

7. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 5, further comprising:

providing a layer of the first conductive type to span a predetermined distance from one end of said first gate insulation film to and beyond said third drain region, wherein the layer is disposed over the second drain region.

8. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 5, further comprising:

forming a layer of the first conductive type having a high impurity concentration at a predetermined depth in said substrate at a region spanning from a predetermined ~~space~~ distance from one end of said first gate insulation film to and beyond said third drain region, ~~and the high impurity concentration being low at a region near surface of the substrate, wherein the layer is~~ disposed over the second drain region.

9. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 7, wherein phosphorus ions are ~~is~~ implanted with an energy of about 100 KeV to 200 KeV in the substrate to form the layer.

10. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 8, wherein phosphorus ions are ~~is~~ implanted with an energy of about 100 KeV to 200 KeV in the substrate to form the layer.

11. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 7, wherein for forming the layer, ion implantation is carried out ~~at~~ in a region spanning from a predetermined space from said first gate insulation film to said third drain region by using a photo-resist as a mask.

12. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 8, wherein for forming the layer, ion implantation is carried out at in a region spanning from a predetermined space from said first gate insulation film to said third drain region by using a photo-resist as a mask.

13. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 7, wherein for forming the layer, ion implantation is carried out at in a region spanning from a predetermined space from the first gate insulation film to said third drain region by using a side wall insulation film formed at adjacent a side wall portion of said first gate insulating film as a mask.

14. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 8, wherein for forming the layer, ion implantation is carried out at in a region spanning from a predetermined space from the first gate insulation film to said third drain region by using a side wall insulation film formed at adjacent a side wall portion of said first gate insulating film as a mask.

15. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 7, wherein said layer is formed at in a region spanning from a predetermined space from the first gate insulation film to said third drain region by using said first gate insulation film as a mask and ion-implanting obliquely from an upper side of the first gate insulation film.

16. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 8, wherein said layer is formed at in a region spanning from a predetermined space from the first gate insulation film to said third drain region by using said first gate insulation film as a mask and ion-implanting obliquely from an upper side of the first gate insulation film.

17. (Currently Amended) A method of manufacturing a semiconductor device according to Claim 7, wherein said layer is formed at in a region spanning from a predetermined space from the first gate insulation film to said third drain region by using a photo-resist formed to

cover said first gate insulation film and ion implanting obliquely from above the first gate insulation film.

18. (Previously Presented) A method of manufacturing a semiconductor device according to Claim 8, wherein said layer is formed at a region spanning from a predetermined space from the first gate insulation film to said third drain region by forming a photo-resist formed to cover said first gate insulation film and ion implanting obliquely from above the first gate insulation film.

19. (Previously Presented) A method of manufacturing a semiconductor device according to Claim 7, wherein said first drain region has a lower impurity concentration than said second drain region.

20. (Previously Presented) A method of manufacturing a semiconductor device according to Claim 8, wherein said first drain region has a lower impurity concentration than said second drain region.

21. (New) A method of manufacturing a semiconductor device according to Claim 5, wherein the source region is in direct contact with the substrate.

22. (New) A method of manufacturing a semiconductor device according to Claim 7, wherein the layer of the first conductive type is formed after formation of the third drain region.

23. (New) A method of manufacturing a semiconductor device according to Claim 8, wherein the layer of the first conductive type is formed after formation of the third drain region.

24. (New) A method of manufacturing a semiconductor device according to Claim 7, wherein the layer of the first conductive type is formed through the second gate insulation film.

25. (New) A method of manufacturing a semiconductor device according to Claim 8, wherein the layer of the first conductive type is formed through the second gate insulation film.

26. (New) A method of manufacturing a semiconductor device according to Claim 7, wherein the layer of the first conductive type has a higher impurity concentration than the first or second drain regions and a lower impurity concentration than the third drain region.

27. (New) A method of manufacturing a semiconductor device according to Claim 8, wherein the layer of the first conductive type has a higher impurity concentration than the first or second drain regions and a lower impurity concentration than the third drain region.